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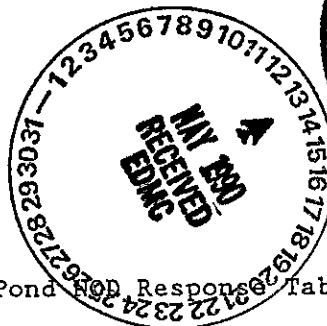
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8741 • (206) 459-6000

May 2, 1990

Mr. Steven H. Wisness
Hanford Project Manager
U.S. Department of Energy
P.O. Box 550
Richland, Washington 99352



Re: Comments on the 2101-M Pond Response Table

Dear Mr. Wisness:

This letter transmits Ecology's comments on the 2101-M Pond Closure Plan Notice of Deficiency Response Table dated March 19, 1990. The Response Table and permit application were reviewed for compliance with final facility status standards in the state Dangerous Waste Regulations (chapter 173-303 WAC).

The majority of the USDOE/WHC proposals were accepted. Resolution is pending on a number of major issues that are scheduled for further work. These are as follows:

- 1) USDOE/WHC will establish criteria for contamination levels that pose a substantial threat to human health or the environment in order to certify clean closure. Although Ecology will not prevent USDOE/WHC from pursuing criteria based on health and environmental effects, we are concerned about the amount of time, money, and resources required for this approach. It may be a better option to assess the available data on background concentration levels to define the criteria for clean closure. Clean closure may be attained by removal of soil with contamination levels above background.
- 2) USDOE/WHC will demonstrate that the 2101-M Pond has had no significant impact on groundwater.
- 3) USDOE/WHC will develop physical and procedural controls to prevent further addition of dangerous wastes from the 2101-M Building to the 2101-M Pond.

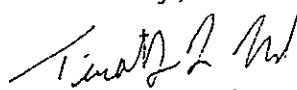
I am requesting that USDOE/WHC respond to these comments by redrafting the permit application. The application should be resubmitted no later

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Steven H. Wisness
Comments on 2101-M Pond NOD Response Table
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than June 2, 1990. Should you have questions or concerns regarding this notice, please contact Megan Lerchen at (206) 438-3089.

Sincerely,



Timothy L. Nord
Hanford Project Manager

Enclosures

cc: Paul Day - EPA, Richland
Dan Duncan - EPA, Seattle
Jack Waite - WHC
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DEPARTMENT OF ECOLOGY
COMMENTS ON THE 2101-M POND CLOSURE PLAN
NOD RESPONSE TABLE OF MARCH 19, 1990
May 2, 1990

The following comments correspond to the numbers from the 2101-M Pond Closure Plan NOD Response Table dated March 19, 1990. Proposals made in the following comments are accepted by Ecology:

1, 2, 3, 4, 5, 8, 11, 12, 18, 22, 28, 29, 30, 31, 32, 33, 34, 39, 43, 50, 57, 59, 61, 62, 63, 66, 72, 73, 74, 80, 85, 90, 93, 95, 97, 98, 99, 101, 102, 103, 104, 106, 111.

Proposals made in the following comments are accepted by Ecology pending submission of further information:

7, 14, 17, 20, 26, 35, 36, 37, 38, 40, 44, 46, 56, 67, 71, 75, 81, 82, 84, 86, 87, 94, 100, 105, 107, 108, 109, 110, 112.

6. USDOE/WHC Proposal: The site will be clean closed so that, "no waste or waste contaminated soils, structures, or equipment will remain onsite that pose a substantial threat to human health or the environment." This is to be demonstrated by, "criteria appropriate for the demonstration of a lack of contamination that pose a substantial threat to human health or the environment."

Furthermore, "the text referring to the adequacy of clean closure will be modified to reflect the additional documentation required to justify clean closure. These activities may include flow-transport and geochemical evaluations, additional sampling and analysis, and the re-evaluation of data."

Ecology Response: This topic will be reviewed after receipt of its revision. Additional comments relating to this topic will be treated similarly; these are as follows: 13, 15, 19, 21, 23, 41, 42, 47, 48, 51, 52, 53, 54, 55, 68, 69, 77, 78, 83, and 96.

9. USDOE/WHC Proposal: Further information regarding potential contamination from the substation maintenance yard will be provided if it is determined that the shop drains are plumbed into the 2101-M Pond.

Ecology Response: Transformers and other items associated with a substation maintenance yard are stored between the 2101-M Building and the 2101-M Pond. Potential contamination from these sources via run-on or run-off must also be addressed.

10. USDOE/WHC Proposal: Current building plans will be provided that indicate which rooms are plumbed to the 2101-M Pond.

Ecology Response: Indicate specifically which drains in these rooms are plumbed to the 2101-M Pond.

16. USDOE/WHC Proposal: Groundwater data was interpreted to the extent available at the time the closure plan was written. Additional data was presented in the plan for completeness. All the data and statistical analyses will be submitted in the 2101-M Pond RCRA Site Characterization Report.

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Ecology Response: This closure plan should provide enough information specific to the 2101-M Pond on which to base decisions. This means that both the available data and its interpretation should be presented within the closure plan; submittal in another report is not sufficient. It is also appropriate for similar types of information to be presented in one section, i.e., all of the data may be presented in tabular form in an appendix.

24. USDOE/WHC Proposal: Modify the closure plan to demonstrate compliance with WAC 173-303-645 and give additional clarifications about the impact the 2101-M Pond has had on groundwater.

Ecology Response: This will be conditionally accepted provided that the following contradictory statements are reconciled and the results approved by Ecology. First it is stated, "while it is difficult to absolutely prove ... well E18-1 is upgradient and representative of background" Then it is stated, "well E18-1 provides background water quality per the definition of Appendix A in the ... [FFACO]." Ecology will determine if this revision is acceptable depending on the results of number 25.

25. USDOE/WHC Proposal: Additional information on unimpacted wells will be presented to demonstrate that the four wells associated with 2101-M Pond were not impacted by past practices.

Ecology Response: See number 24.

27. USDOE/WHC Proposal: Several actions will be taken and procedures instituted to limit discharge of hazardous materials to the 2101-M Pond, as follows:

- Non-crucial sinks will be removed from service;
- Operable sinks will be posted with signs reading, "Do Not Use For Waste Disposal," or an equivalent legend;
- Wastes not designated as nonregulated and/or nonhazardous by engineering support will be prohibited from operable sinks;
- Activities that could potentially generate dangerous wastes will be performed over sinks which drain to collection vessels;
- Written procedures will be implemented to ensure proper management and disposal of regulated wastes that are generated;
- Independent, bimonthly and twice yearly inspections of all laboratory spaces with active sinks will be performed;
- The 2101-M Pond weir will be sampled every three months and analyzed for pH, conductivity, and total organic carbon; this data will support designation of the waste stream and will be tracked for trending purposes.

Ecology Response: This will be acceptable on two conditions:

- 1) The monitoring program must be approved by Ecology. The monitoring program must account for all dangerous wastes that could potentially arrive at the 2101-M Pond. This will be dependent on the materials that are received in the 2101-M Building and therefore the testing must be designed to detect these chemicals and their possible derivatives. Testing solely for pH, conductivity, and TOC is not sufficient.
- 2) It will be necessary to have a response and clean-up plan approved by Ecology in place in case there is a release of dangerous wastes to the 2101-M Pond. Ecology will also require submittal of a Part B Permit Application within six months of the date of the release.

45. USDOE/WHC Proposal: A re-evaluation of data will be performed using statistical guidance such as that provided in EPA (1989).

Ecology Response: Also refer to the attached copy of Item No. 28 from the "Response to WDOE Review Comments for SHLWS T/S Closure Plan," dated March 2, 1990 (this is a revision of a September 1989 draft) for guidance. The topics addressed in numbers 49 and 76 should be evaluated similarly.

58. USDOE/WHC Proposal: "The integrity of background sample data collected within 1000 ft of the 2101-M Pond site will be assessed and documented in the 2101-M Closure Plan."

Ecology Response: The issue of past practice effects and RCRA/CERCLA overlap at sites chosen for background sampling is being decided at the Project Manager's level. The acceptability of the background sampling sites will be decided after this issue is resolved.

60. USDOE/WHC Proposal: Presentation of a flow transport/geochemistry model of the vadose zone to document the expected movement of constituents below the 12-foot sample zone.

Ecology Response: This information must be presented within the closure plan to the extent that it is available and applies to the 2101-M Pond site in order to evaluate clean closure.

64. USDOE/WHC Proposal: Holding times for run-off ditch samples are discussed.

Ecology Response: Incorporate the information on holding times within the closure plan.

65. USDOE/WHC Proposal: Resampling of the upper strata of the 2101-M Pond on a 1-foot sample interval.

2101-M Pond Closure Plan
Comments on the NOD Response Table
May 2, 1990

Ecology Response: This may be acceptable, however additional information should be provided for Ecology's approval prior to sampling. The maximum strata acceptable for compositing is six inches and the top two feet of soil must be resampled.

70. USDOE/WHC Proposal: Significant percent differences in quality control limits will be referenced to the CLP validation criteria.

Ecology Response: The percent differences should be presented individually unless they are exactly as in the CLP validation criteria.

79. USDOE/WHC Proposal: Each sampling site will be individually designated in accordance with WAC 173-303-084(5)(b).

Ecology Response: This is acceptable. Note that each sampling site must be designated in accordance with WAC 173-303-070. Refer to number 113.

86. USDOE/WHC Proposal: Incorporation of groundwater sampling analytical quality assurance and quality control data into a referenced report.

Ecology Response: This information must be incorporated into the closure plan.

88. USDOE/WHC Proposal: All the wells in Table B-21 are consistent and comparable despite no corrections for deviations, including inclinometer surveys.

Ecology Response: The information provided by inclinometer surveys is necessary to compare data in an area where the water-level gradient is so small. This information should be obtained and the data corrected as necessary.

89. USDOE/WHC Proposal: Use of well El8-1 as the upgradient well to the 2101-M Pond and therefore, the source for background quality groundwater.

Ecology Response: Until it can be conclusively shown that well El8-1 is upgradient of the 2101-M Pond it should not be assumed to be the definitive source of background quality water. Refer to numbers 24 and 25.

91. USDOE/WHC Proposal: No change proposed in utilizing Well 299-El8-1 as the "background" well. It is also noted that the intent of the regulation is to determine if a facility has affected groundwater quality, not whether the groundwater quality compares with natural background.

Ecology Response: It appears that USDOE/WHC has misunderstood the intent of the original comment, which meant to point out that the direction groundwater flows in this region can not be determined without further information, and therefore, references to

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"background" are premature and inappropriate in relation to well E18-1. Refer to numbers 24 and 25.

92. USDOE/WHC Proposal: The information presented in a number of tables is presented in text form. This information does not change what was originally presented.

Ecology Response: Incorporate this text within the closure plan as it does serve as a clarification of the information presented in the tables.

113. USDOE/WHC Proposal: Random sampling is explained.

Ecology Response: The original request was for examining the results for each sample individually against the background data in addition to the pooled data analysis already presented. Each sample must be compared individually to background and the results presented in the closure plan. Refer to number 45.

General Comment

114. Comment: A closure schedule is not presented.

Requirement: A closure schedule must be included within the closure plan. See the 183-H Solar Evaporation Basin Closure Plan for guidance.

CORRESPONDENCE DISTRIBUTION COVERSHEET

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Subject: Comments on the 2101-M Pond Notice of Deficiency (NOD) Response Table

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